

REMARKS

Claims 1-3, 5-12, and 14-15 are active in the application.

5 Claim 1 has been amended to clarify that the antennas are capable of transmission. This amendment does not present new issues for consideration in that the antennas are already understood to allow transmission.

Claim 7 has been amended to clarify that the plurality of sensors sense an extent of covering of the antenna. This amendment does not present new issues in that the plurality of sensors is understood to sense the extent of covering.

10 Claim 9 has been amended to substantially include the feature of claim 13.

In the office action, new grounds of rejection are presented, however, the references relied upon by the Examiner were cited in the previous office action. The new grounds of rejection are summarized as follows:

15 Claims 1, 3, 5, 7, and 8 were rejected under 35 USC 102(e) as being anticipated by US patent 6,678,532 to Mizoguchi.

Claims 9, 11, 12, and 15 were rejected under 35 USC 102(e) as being anticipated by US patent 6,456,856 to Werling.

Claim 2 was rejected under 35 USC 103(a) as being unpatentable over Mizoguchi in view of US patent 5,905,467 to Narayanaswamy.

20 Claim 6 was rejected under 35 USC 103(a) as being unpatentable over Mizoguchi in view of US patent 5,224,151 to Bowen

Claim 10 was rejected under 35 USC 103(a) as being unpatentable over Werling in view of Narayanaswamy.

25 Claim 13 was rejected under 35 USC 103(a) as being unpatentable over Werling in view of Bowen.

Claim 14 was rejected under 35 USC 103(a) as being unpatentable over Werling in view of Mizoguchi.

All of the rejections are traversed in view of the amendments above and remarks below.

30 The rejection of claim 1 based on Mizoguchi is erroneous because claim 1 includes the limitation that both the first and second antennas are *disposed in* the housing.

The antennas of claim 1 are *internal antennas*. By comparison, Mizoguchi requires an *external* whip antenna located outside the housing (see, for example, Figs. 7, 11A, 11B, and 14 and col. 6, lines 4-10, col. of Mizoguchi). Mizoguchi lacks any teaching or suggestion that both antennas can be internal antennas. This is a significant difference
 5 because an internal antenna is not observable by a user, and therefore more likely to be covered with a hand. An external antenna does not generally benefit from a coverage sensor because a user can easily avoid covering an external antenna. Hence, the rejection of claim 1 based on Mizoguchi is erroneous and must be withdrawn.

Also, it is noted that Mizoguchi teaches that both antennas 11A 11B are located in
 10 an upper part of the device (i.e. as defined by hinge location). Antennas 11A 11B are located very close together. Claim 1, by comparison, requires that first and second antennas are located in top and bottom portions of the device. The closely spaced antennas of Mizoguchi will typically both be covered by a hand when one is covered. By comparison, with the antennas widely spaced according to the present invention, only one
 15 antenna can be covered by a hand. Hence, the rejection of claim 1 is erroneous and must be withdrawn for this additional reason.

Furthermore, Claim 1 has been amended to specify that the antennas are capable of *transmission* as distinct from reception only antennas. Mizoguchi teaches a portable phone with multiple antennas. In Mizoguchi, the antenna impedance is monitored and the
 20 detected result is used to select *the best antenna for reception*. Unlike the present invention as claimed in amended claim 1, Mizoguchi requires that the switched antenna is useful *only for reception*. Specifically, Mizoguchi states on col. 9, line 66- col. 10, line 5 (emphasis added): "The second high frequency switch 24b has a contact to connect of the *receive-only second antenna* 11b with the receiving circuit 22 in case of the reception.
 25 The first high frequency switch 24a has a contact to connect the transmitting circuit 23 with the first antenna 11a in transmission, and a contact to connect the first antenna 11a with the receiving circuit 22 through the second high frequency switch 24b in case of reception." From this statement, and inspection of Fig. 15 (see switches 24a 24b) it is clear that two antennas (antennas 11a 11b) are available for reception, and *only one*
 30 *antenna* (antenna 11a) is available for transmission. Wholly absent from Mizoguchi is any teaching or suggestion that a plurality of antennas, both of which can be used for

transmission, can be switched for purposes of enhancing transmission. Mizoguchi does not teach or suggest switching between two antennas capable of transmission. Claim 1, by comparison, requires a plurality of antennas capable of *transmission* and switches for selecting a transmission antenna based on detected antenna characteristics. Accordingly, the rejection of claim 1 based on Mizoguchi is traversed, and the rejection must be withdrawn.

All claims which depend from claim 1 are not obvious for the same reasons as noted above, and it is noted that neither Narayanaswamy or any other reference of record makes up for the deficiencies of Mizoguchi noted above.

In addition, regarding claim 7, Mizoguchi does not teach or suggest a plurality of sensors to sense the extent of covering of an antenna (see page 5, lines 20-25 of specification). Mizoguchi does teach that two antennas can each be connected to an impedance sensor, but this arrangement provides only a single sensor for each antenna. Hence, Mizoguchi fails to teach a device that has a plurality of sensors that can sense the extent of antenna covering. Accordingly, the rejection of claim 7 is traversed.

Claim 9 has been amended to include the main feature of claim 13. The rejection of claim 13, now claim 9, is erroneous because neither Bowen nor Werling teach or suggest an optical sensor for detecting changes in light intensity. The optical sensor specified in claim 9 allows detecting which antenna is covered or obstructed, and neither Bowen or Werling provide a similar mechanism for detecting which of two antennas are covered by a head or hand.

If Bowen is combined with Werling as proposed in the Office Action, the result will be very different from the present invention as claimed in amended claim 9. The present invention requires a sensor that detects changes in light intensity, and this allows determining which antenna is covered (e.g., by a hand or body part). Specifically, claim 9 requires a switch for switching “the operation from the deteriorated transmission antenna to a different transmission antenna”, and hence the detector must be able to determine which antenna is covered. By comparison, Bowen teaches infrared range detection that detects the *distance* between the device and a head or hand. The *range detector* of Bowen cannot determine which antenna or which portion of the device is covered. Therefore, incorporating the *range detector* of Bowen cannot provide *antenna coverage detection*

required in the present invention as claimed in amended claim 9. Hence, the rejection of claim 9 is traversed.

5 Additionally, it is noted that there exists no motivation to alter the range detector of Bowen to be able to detect which antenna is covered. This is because the functionality of Bowen (i.e. switching between open-air speakerphone mode and ear-coupled handset mode, or adjusting speaker volume) requires only range detection. Also, Bowen does not teach using multiple antennas or multiple range detectors, which would be needed for antenna selection. There is simply no reason or motivation to alter Bowen to be able to detect which antenna is covered. Hence, the combination proposed in the Office Action
10 will not reasonably produce the invention as claimed. Accordingly, the rejection of claim 13 (now claim 9) is traversed for this additional reason.

All claims that depend from claim 9 are not anticipated by Werling and are not obvious over any combination of references of record for the same reasons noted above, and it is noted that neither Narayanaswamy or any other reference of record makes up for
15 the deficiencies of Werling noted above.

In view of the foregoing, it is respectfully requested that the application be reconsidered, that claims 1-3, 5-12, and 14-15 be allowed, and that the application be passed to issue.

Should the Examiner find the application to be other than in condition for
20 allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

A provisional petition is hereby made for any extension of time necessary for the continued pendency during the life of this application. Please charge any fees for such provisional petition and any deficiencies in fees and credit any overpayment of fees for the petition or for entry of this amendment to Attorney's Deposit Account No. 50-2041

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Respectfully submitted,



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